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## JONAH'S WHALE.

By PAUL HAUPT.

(Read April 20, 1907.)

In my paper on "Archæology and Mineralogy," which I read at the general meeting four years ago,<sup>1</sup> I remarked that a competent archæologist must have more than a bowing acquaintance with all branches of science. His philological equipment enables him merely to read the records of the past; but even the translation of an ordinary historical text presupposes a large amount of knowledge, not only of philology, history, chronology, geography, ethnology, but also zoology, botany, mineralogy, &c. I pointed out some conclusions which I had reached, on the basis of mineralogical considerations, with regard to two important problems in archæology, *viz.* King Solomon's Mines and Alexander the Great's Expedition to the East. I showed that the *lilies* of the Bible were dark purple sword-lilies (*Gladioli atroviolacei*, Boiss.)<sup>2</sup> which the ancients called *hyacinths*, a name which they used also for the purple variety of quartz, which we term *amethyst*, while the *amethyst* of the ancients denoted the rare purple variety of corundum, known as *purple ruby* or *amethystine sapphire*. I also showed that the *stones of Tarshish*, mentioned in the Bible, were ruby-like crystals of cinnabar from the quicksilver mines of Almaden in southern Spain, and that *Tarshish* was a Phœnician word meaning *dressing of ores*, especially *spalling*.<sup>3</sup> *Tarshish* was the mining region in southern Spain, and the *ships of Tarshish* went to Spain,

<sup>1</sup> See the abstract in the *Johns Hopkins University Circulars*, No. 163, p. 51.

<sup>2</sup> See Haupt, *Biblische Liebeslieder* (Leipzig, 1907) p. 34, n. 20; *cf.* n. 34 to my paper *Difficult Passages in the Song of Songs* in the *Journal of Biblical Literature*, Vol. XXI., p. 68, and my notes on the Book of Canticles in *The American Journal of Semitic Languages*, Vol. XVIII., p. 241.

<sup>3</sup> See Haupt, *Bibl. Liebeslieder*, p. 59, n. 37; *cf.* the *American Journal of Semitic Languages*, Vol. XVIII., p. 230, and the *Verhandlungen des xiii. Orientalisten-Kongresses* (Leyden, 1904) p. 232.

and not to India.<sup>1</sup> The prophet Jonah was commanded to go to the East, to preach repentance in Nineveh; but he boarded a vessel at Joppah, and tried to go West, to Tarshish, *i. e.*, southern Spain.

In the present paper I shall discuss a zoological problem, *viz.* Jonah's whale. Geo. A. Smith has prefixed to his remarks on the Book of Jonah the quotation:<sup>2</sup> *And this is the tragedy of the Book of Jonah, that a Book which is made the means of one of the most sublime revelations of truth in the Old Testament should be known to most only for its connection with a whale.* Jonah's whale is the sea-monster which *swallowed up* the disobedient prophet and *vomited him out again upon the dry land*, after Jonah had been in the bowels of the monster three days and three nights. The original text speaks only of *a great fish*,<sup>3</sup> just as the legend of the Fall of Man speaks only of the *fruit of the tree of the knowledge of good and evil*, not of an *apple*.<sup>4</sup> Not to know good and evil (*i. e.*, what is wholesome and injurious) means in Hebrew to be like a child. He who eats of the forbidden fruit loses his childlike innocence. The Fall of Man is the first coitus—an explanation which was given by the great English philosopher Thomas Hobbes in his *Leviathan* (London, 1651).<sup>5</sup>

The popular conception that Jonah was swallowed by a whale is based on the passage Matt. xii, 39–41, where Jesus says: *An evil and adulterous<sup>6</sup> generation seeketh after a sign; and there shall no sign be given to it, but the sign of the prophet Jonas.*<sup>7</sup> For as Jonas was three days and three nights in the whale's belly; so shall

<sup>1</sup> See p. 119 of the Critical Notes on the Hebrew text of the Book of Kings in the Polychrome Bible.

<sup>2</sup> In Vol. II. of *The Book of The Twelve Prophets* (London, 1898) p. 492 (*The Expositor's Bible*).

<sup>3</sup> The preceding verb does not mean *prepared* but *detailed, appointed*; cf. Haupt, *Purim* (Leipzig, 1906) p. 17, l. 37.

<sup>4</sup> The Hebrew word for *apple* seems to denote the large yellow berries of the mandrake; see Haupt, *Bibl. Liebeslieder*, p. 64; cf. the *American Journal of Semitic Languages*, Vol. XVIII., p. 232, n. 5.

<sup>5</sup> See my remarks in the *Journal of Biblical Literature*, Vol. XXI., p. 66.

<sup>6</sup> That is, *idolatrous*.

<sup>7</sup> The wonderful message of God transmitted by Jonah and Jesus is sufficient; cf. Luke xi, 30; xvi, 31; also Mark, viii, 12.

the Son of Man<sup>1</sup> be three days and three nights in the heart of the earth. *The men of Nineveh shall rise<sup>2</sup> in judgment with this generation, and shall condemn it,<sup>3</sup> because they repented at the preaching of Jonas; and behold a greater than Jonas is here.* That is, the Ninevites had more faith than the present generation: when a prophet of Israel preached in a foreign land to the heathen inhabitants of Nineveh, they believed him and turned to God; Jesus, a greater prophet than Jonah, *came unto His own home, and His own people received Him not* (John i, 11).<sup>4</sup> Matt. xii, 41 is the immediate sequel of v. 39; the intervening verse is a later insertion.<sup>5</sup> Even if these words were authentic, they would not prove that Jesus regarded the history of Jonah as actual history. We may illustrate a point by referring to King Lear without committing ourselves as to the historical accuracy of Shakespeare's tragedy. An astronomer who speaks of a beautiful sunset does not contest the Copernican system.

The Greek text has in Matt. xii, 40 *κῆτος* (Lat. *cetus*, which means *sea-monster*,<sup>6</sup> but not necessarily *whale*). Any huge marine animal might be called *cetus*, not only a cetacean, but also a large cuttle-fish, or a huge shark, or the enormous sea-serpent, which is said to have been repeatedly seen at sea.<sup>7</sup>

<sup>1</sup> *Son of Man* means simply *man* in Aramaic; see the translation of *Ezekiel*, in the Polychrome Bible, p. 96, l. 51; cf. Wellhausen, *Israelitische und jüdische Geschichte* (Berlin, 1904) p. 387, below.

<sup>2</sup> In the Revised Version: *stand up*. For the phrase *to stand in the judgment* see Psalm i and my explanation in *The American Journal of Semitic Languages*, Vol. XIX., p. 132.

<sup>3</sup> That is, if the Ninevites were tried together with this generation for disbelief in revealed religion, they would be acquitted, and you would be found guilty: they would *stand* the test, and you would be found wanting.

<sup>4</sup> Cf. Gustav Frenssen's *Hilligenlei*, chapter XXVI., p. 523.

<sup>5</sup> In Luke xi, 29-32, there is no reference to Jonah in the belly of the whale; cf. Wellhausen, *Das Evangelium Matthæi* (Berlin, 1904) p. 64.

<sup>6</sup> The Revised Version gives *sea-monster* in the margin. In Gen. i, 21; Job vii, 12, on the other hand, the R. V. substitutes *sea-monster* for the rendering *whale* in the Authorized Version.

<sup>7</sup> The accounts given of the appearance of the so-called *sea-serpent* cannot all be based on inaccurate observations, though it is not certain that this unknown sea-monster is an animal of serpentine form. The President of the *Deutsche Orient-Gesellschaft*, Admiral Hollmann saw a large *sea-serpent* on July 26, 1883; cf. A. C. Oudemans, *The great sea-serpent* (London, 1892) and the article, *Das Problem der grossen Seeschlange* by Dr. R. Henning in the Berlin weekly *Daheim* (1906) No. 49.

Some scholars imagined that Jonah merely dreamed that he had been swallowed by a great fish. Others fancied that the prophet was not swallowed, but clung to the belly of the fish.<sup>1</sup> Certain expositors suppose that The Whale was the name of a ship which picked up Jonah, or the name of an inn on the seashore.<sup>2</sup> The famous German student's song (by Sch e f f e l) begins: *Im schwarzen Walfisch zu Askalon da trank ein Mann drei Tag*, and the last stanza is: *Im schwarzen Walfisch zu Askalon wird kein Prophet geehrt, und wer vergnügt dort leben will, zahlt bar was er verzehrt*.

Orthodox theologians who defend the historical character of the Book of Jonah generally presume that the great fish which swallowed Jonah was a shark.<sup>3</sup> Professor Geo. E. Post, of the American College, Beyrout, Syria, saw a shark at Beyrout 20 feet long, and they sometimes attain a length of 30 feet.<sup>4</sup> „Sharks may swallow men, and even horses and other large animals whole. In certain theological commentaries<sup>5</sup> we find the remarkable statement that, in 1758, a sailor fell overboard in the Mediterranean and was swallowed by a shark (*carcharias*). The captain commanded to train a gun upon the man-eater, and the monster was hit by a cannon ball. The shark vomited out the sailor who was picked up by a boat; he had hardly suffered any injury. This is reported to have happened in 1758; I did not see it.

Against the traditional rendering *whale* the objection is often raised that there are no whales in the Mediterranean,<sup>6</sup> and that the

<sup>1</sup> See Hastings' *Dictionary of the Bible*, Vol. II. (New York, 1899) p. 749<sup>b</sup>, below.

<sup>2</sup> See J. D. Michaelis' translation of the Old Testament, Part XI. (Göttingen, 1782) p. 100.

<sup>3</sup> Cf. C. F. Keil's Biblical commentary on the Minor Prophets (Leipzig, 1873) p. 285.

<sup>4</sup> See Hastings' *Dictionary of the Bible*, Vol. IV. (New York, 1902) p. 914<sup>b</sup>.

<sup>5</sup> See Paul Kleinert in J. P. Lange's *Bibelwerk*, part XIX. (Bielefeld, 1868) p. 30<sup>a</sup>; Keil's commentary, p. 285, below.

<sup>6</sup> The daily papers stated on March 24, 1907, that the Rev. A. C. Dixon, of Chicago (who caused comment by his declaration that the Biblical story of Jonah and the whale was perfectly true, and that the Deity could have constructed the whale along the lines of a modern submarine vessel with electric lights and a cabin), when told that whales were never seen in the Mediterranean, replied: There was one there in the early days.

gullet of the whale is not large enough to admit a man. Now there can be no doubt of the existence of whales in the Mediterranean, although the Swedish naturalist and traveler Fredrik Hasselquist states in his *Voyages and Travels*, published in 1766,<sup>1</sup> with reference to Job xli, 1, where the Authorized Version has *whale* in the margin for *leviathan*:<sup>2</sup>—*How could he speak of an animal which never was seen in the place where he wrote, and at a time when he could have no history of Greenland and Spitzbergen.* Dr. Post states that large parts of the skeletons of two specimens of the right whale are preserved in the museum of the Syrian Protestant College at Beyrout. One of these animals was cast up on the shore near Tyre, not far from the traditional site of the ejection of Jonah, which is at *Nabî Yûnus* (Arab. *Khân an-Nabî Yûnus*)<sup>3</sup> near Zidon. The other was drifted ashore at Beyrout itself. The gullet of the *right whale* would not admit a man; but the *sperm-whale*<sup>4</sup> or *cachalot*<sup>5</sup> has a gullet quite large enough to enable him to swallow a man. Sperm-whales are found in the Mediterranean, although they are not frequent.

<sup>1</sup> Hasselquist's *Iter Palæstinum, eller Resa till Heliga Landet* was edited by Linné (Stockholm, 1757). Hasselquist died at Byn Bagda near Smyrna in 1752.

<sup>2</sup> Leviathan = crocodile, behemoth = hippopotamus.

<sup>3</sup> The tomb of the prophet Jonah is shown at *Al-Mâshhad* (i. e., *Tomb of a Saint*) representing the Biblical *Gath-hepher* (2 Kings xiv, 25) north of Nazareth; also in the south near the ancient fortress of *Bethsura* (north of Hebron) whose unsuccessful siege (163 B. C.) is alluded to in Eccl. iv, 14; see Haupt, *Ecclesiastes* (Baltimore, 1905) p. 42, n. 6. *Nabî Yûnus* is also the name of the smaller mound southeast of the Acropolis of Nineveh; see my address on the Book of Nahum in Vol. XXVI of the *Journal of Biblical Literature* (p. 2) and cf. Bædeker's *Palästina und Syrien* (Leipzig, 1904) pp. 102, 216, 241, 361.

<sup>4</sup> The name *sperm-whale* or *spermaceti whale* is derived from the *sperm-oil* or *spermaceti* found in the cavity of the head of the cachalot. This oily white liquid, which solidifies on cooling, was called *sperma ceti*, because it was regarded as the male spawn (or *milt*) of the animal. Dutch and English whalers formerly called *spermaceti whale-shot*. It is also known as *white amber*; see below.

<sup>5</sup> *Cachalot* is a French loanword. In the new Oxford dictionary *cachalot* is derived from a Romanic word for *tooth*, Gascon *cachau*, Carcassonne *caichal*. The *cachalot* is not a *mysticete*, i. e., a *baleen* or *whalebone whale*, commonly known as *right whale*, but an *odonticete* or *denticete*, i. e., a toothed cetacean.

<sup>6</sup> See Hasting's *Dictionary of the Bible*, Vol. IV., p. 914<sup>b</sup>.

In a cuneiform inscription of the Assyrian king Assur-nâçir-pal (885-860 B. C.) we find the statement that his predecessor Tiglath-pileser I (about 1100 B. C.) boarded Phœnician ships at Arvad (near the N. E. end of the Mediterranean) and slew a *blower*, just as the German Emperor a few years ago, during one of his Norwegian cruises, took part in a whale-hunt. The Greek name of the sperm-whale, *physeter*, means *blower*, i. e., spouting up water.<sup>1</sup> In a paper on the cuneiform name of the cachalot (which I read at the annual meeting of the American Oriental Society held in Philadelphia, April 5, 1907)<sup>2</sup> I showed that the *blower* (Assyr. *nâkhiru*) slain by the ancient Assyrian king in the N. E. part of the Mediterranean must have been a *sperm-whale*,<sup>3</sup> because in a passage of the cuneiform annals of Assur-nâçir-pal we read that this Assyrian king received, as tribute from Tyre, Zidon, Arvad, and other places on the Phœnician coast, ivory *teeth of the blower, the creature of the sea*. This *blower* with ivory teeth cannot have been a *narwhal*<sup>4</sup> or *walrus*,<sup>5</sup> these animals are not found in the Mediterranean. The sperm-whale has, on each side of the lower jaw,<sup>6</sup> from 20 to 25 conical (slightly recurved) teeth which consist of the finest ivory. They are about 5 or 6 in. long, projecting about 2 in. from the gum. The upper jaw, which is very much larger than the lower jaw, is destitute of teeth; at any rate the upper teeth are quite rudimentary and buried in the gum.

<sup>1</sup> The *blowing* or *spouting* of a whale is the act of expiration; the visible stream is chiefly condensed vapor like that of human breath on a cold day.

<sup>2</sup> See the *American Journal of Semitic Languages*, Vol. XIII, p. 253.

<sup>3</sup> The blow-hole of the cachalot is near the edge of the snout.

<sup>4</sup> The so-called *horn* of the *narwhal* (which is sometimes ten feet long and which consists of the hardest ivory) is the left upper incisor of the animal, just as the tusks of elephants are incisors. The horn of the *unicorn* in the British royal coat of arms is the tusk of a narwhal; see my remarks in the translation of the Psalms, in the Polychrome Bible, p. 173.

<sup>5</sup> The enormous teeth which protrude like tusks from the upper jaw of the male walrus are canines, just as the large ivory teeth of the hippopotamus, which sometimes reach a length of two feet or more and weigh upward of six pounds.

<sup>6</sup> The scientific name of the *sperm-whale* is *Physeter* or *Catodon macrocephalus*. *Catodon* means *having under teeth*. *Macrocephalus* points to the enormous size of the square head of the cachalot, which represents one half of the entire bulk of the animal and about one third of the total length.

For several centuries ivory was known as *whale's bone* (not *whalebone*!). Shakespeare says: *To show his teeth as white as whale's bone*.<sup>1</sup> The comparison *as white as whale's bone* is proverbial in the old poets. Also the very hard (*petrosal*) parts of the ear-bones of whales resembles ivory, just as the substance of the ear-stones (*otoliths*) of fishes is called *brain-ivory*.

In the second column of the obelisk recording the slaying of a sperm-whale in the Mediterranean at the hands of Tiglathpileser I (about 1100 B. C.) Assur-nâçir-pal (885–860) states that he placed two *blowers* of AD-BAR-stone at the gates of the palaces in the ancient capital of Assyria, *Assur*, now known as *Kileh Shergat*<sup>2</sup> where the Germans have been conducting excavations during the past four years under the auspices of the *Deutsche Orient-Gesellschaft*. According to No. 26 of the *Mitteilungen* of this Society (Berlin, April 1, 1905) p. 56, the ideogram AD-BAR means *basalt*, and on p. 53 of the same number the field-director of the German excavations at Kileh Shergat reports that a great many basalt fragments of sculptures have been found, but the restoration of the figures has not been accomplished. Assyriologists did not know that *nâkhiru*,<sup>3</sup> blower meant *sperm-whale*. It is not impossible that the two basalt cachalots of Kileh Shergat will eventually be recovered. The general color of a sperm-whale is a very dark

<sup>1</sup> Cf. H. H. Furness' *Variorum Shakespeare*, Vol. XIV.: *Love's Labour's Lost* (Philadelphia, 1904) p. 262.

<sup>2</sup> Arab. *Kal'at Shergât*; see Bædeker's *Syrien and Palästina* (1904) p. 362, l. 5.

<sup>3</sup> Hommel, in his *Geschichte Babylonien und Assyrien* (Berlin, 1889) p. 532, deemed it possible that the *blower* which Tiglathpileser I slew in the northeastern part of the Mediterranean was a hippopotamus! English Assyriologists explained *nâkhiru* to mean *dolphin*. But the *blower* must have been an exceptionally large and dangerous animal, and comparatively rare in the Mediterranean; otherwise the slaying of this one animal would not have been especially recorded. It seems to have been regarded as the greatest achievement in Tiglathpileser's venatic record, for this feat is mentioned first, before the account of Tiglathpileser's hunting of wild oxen, elephants, lions, &c. The hunting of a cachalot is a much more hazardous undertaking than ordinary whaling. When aroused, the sperm-whales are formidable adversaries. They can completely destroy a whaleboat by crunching it with the teeth or striking with the tail, and by using the enormous head as a ram they can sink small vessels like the ships of Arvad on which Tiglathpileser I embarked.



grey, nearly black on the upper parts, and lighter beneath. The ancient Assyrian sculptors might have imitated this by the use of dark grey and light grey dolerites, or light dolerite and dark anamesite. In the reports of the *Deutsche Orient-Gesellschaft* the stone is called *Basalt lava*. This is very indefinite: any kind of basalt might be called *basalt lava*; all the rocks of the basalt family are of eruptive origin.

The basalt cachalots of Kileh Shergat are probably very large. The giant sperm-whale attains a length of about 100 feet, with a girth of 40 feet. The Arabic name of the sperm-whale<sup>1</sup> is 'anbar (for 'anbar, 'abbar) which means *passing through the water*; Heb. 'ovér yam (Is. xxiii, 2) means *seafaring, passing over the sea*. 'Anbar is also the name of the fragrant substance which we call *ambergris*, i. e., *grey amber*, in distinction from yellow amber (French *ambre jaune*, German *Berustein*, i. e., *lapis ardens*)<sup>2</sup> and *white amber*, i. e., *spermaceti*. While a pound of (purified) spermaceti is worth about 30 cents, grey ambergris is worth about \$35.00 per oz. at present;<sup>3</sup> this (wholesale) price is subject to considerable variation. The use of ambergris in perfumery is decreasing. Ambergris is a morbid concretion from the alimentary tract of the sperm-whale, like the *bezoar*<sup>4</sup> found in the stomach and intestines of certain animals, especially the wild goat, *Capra Ægagrus*, known as the *bezoar goat*, which is found chiefly in the mountains of the Caucasus and Persia. The fragrance of ambergris is said to be due to a bacterium, the *spirillum recti physeteris*. Ambergris is usually found floating on the surface of the ocean or cast upon the shore in regions frequented by sperm-whales, sometimes in masses from 60 to 215 pounds in weight. The sperm-whale is most abundant off New Zealand, in the Sulu Sea, about the Cape Verde Islands, and in the Indian Ocean. Roughly speaking we may say that the cachalot is found chiefly between lat. 40° N. and 60° S. The

<sup>1</sup> See Hommel, *Die Namen der Säugethiere bei den südsemitischen Völkern* (Leipzig, 1879) pp. 393 and 447.

<sup>2</sup> See my remarks in the *American Journal of Semitic Languages*, Vol. XXIII, p. 242, l. 5.

<sup>3</sup> Black ambergris is cheaper: the wholesale price is \$20.00 per oz. at present.

<sup>4</sup> Bezoar is a corruption of the Persian *pâdzâhr* (Arab. *bâdizahr*) a compound of *pâd*, expelling, and *zahr*, poison.

region of Arvad where Tiglathpileser I slew a sperm-whale is S. of lat. 35° N.

In the Ethiopic Bible the name 'anbar is used for the *great fish* which swallowed Jonah. A sperm-whale might have swallowed the disobedient prophet, but it is, of course, impossible that Jonah should have been alive after having been in the belly of the whale for three days and three nights, although it is reported in the *Neue Luther. Kirchenzeitung* 1895, p. 303, that a whaleman, James Bradley was, in Feb. 1891, swallowed by a whale, and on the following day he was taken alive out of its stomach. He lay in a swoon in the belly of the whale. The sailors had much difficulty in restoring him to consciousness. It was not till after three months' nursing that James Bradley recovered his reason.<sup>1</sup>—After all, he seems to have been more fortunate in this respect than some distinguished Biblical scholars.

We need not trouble ourselves about the miraculous preservation of the prophet: the Book of Jonah is not actual history, but an apologue like the story of the good Samaritan in the New Testament (Luke x, 30–37) or the parable of the three rings<sup>2</sup> in Lessing's *Nathan der Weise*. The Book of Jonah (which may have been composed, like *Ecclesiastes*,<sup>3</sup> under the reign of Alexander Jannæus, about 100 B. C.) represents a Sadducean<sup>4</sup> protest against the Pharisaic exclusiveness based on the conviction that Divine Grace was reserved for the Chosen People, not for the Gentiles. The present Book of Jonah seems to have displaced in the Dodecapropheton a prophecy of the ancient prophet Jonah ben-Amittai, of Gath-hepher, who prophesied (about 785 B. C.) at the time of King Jehoahaz of Israel (*cf.* the Deuteronomistic addition in 2 Kings xiii, 4–6) the deliverance of Israel from the oppression of the Syrians, which was accomplished by Jehoahaz's son, Jeroboam II (see 2 Kings xiv, 25).

<sup>1</sup> See Hasting's *Dictionary of the Bible*, Vol. II., p. 750<sup>b</sup>.

<sup>2</sup> This was taken from Boccaccio's *Decamerone*, *Giornata i*, *Nov. iii*: *Melchisedech Giudeo*.

<sup>3</sup> See Haupt, *Ecclesiastes* (Baltimore, 1905) p. 1.

<sup>4</sup> *Sadducee*, righteous is a euphemistic term for *unrighteous*, i. e., *Hellenizer*, *freethinker*; see Haupt, *Ecclesiastes*, p. 35, n. 1, and the paper *The name Istar* in the *Journal of the American Oriental Society*, Vol. XXVIII.

The sea-monster which swallowed Jonah corresponds to the wonderful creatures in the Arabian Nights, which transport men to the remotest regions. We must assume that the whale swallowed Jonah near Joppa and cast him ashore at Alexandretta. It was easier for Jonah to proceed thence to Nineveh, especially if he went down the Tigris, than to return to Jerusalem.<sup>1</sup> A sperm-whale could easily swim from Joppa to Alexandretta in three days and three nights; the distance is only about 300 miles. The cachalot swims, as a rule, at a rate of from 3 to 7 miles an hour, and just under the surface of the water. If a sperm-whale swam seven miles an hour, it might rest more than nine hours a day and still cover the distance from Joppa to Alexandretta in three days and three nights, *i. e.*, 72 hours. If Jonah had traveled overland on horseback, it would have taken more than two weeks. The trip from Joppa to Haifa, which represents but one sixth of the entire distance from Joppa to Alexandretta requires from two to three days. A day's journey on horseback is about 25 to 30 miles. The gait of the horses in Palestine is a brisk walk; they hardly ever trot.

The sea-monster was suggested to the author of the Book of Jonah by the local legends connected with Joppe.<sup>2</sup> According to tradition, Andromeda was chained to the rock on the southern side of the narrow opening in the low ledge of rock forming the harbor of Joppa. Andromeda was there exposed to a sea-monster, but was rescued by Perseus, just as the Trojan princess Hesione was delivered by Hercules from a marine monster. The myth of

<sup>1</sup>The overland journey from Alexandretta to Diārbekr (through Aleppo and Urfa) may be made in about 10 days, and the rafting on the Tigris from Diārbekr to Nineveh requires but four days, when there is plenty of water (*i. e.*, from April to June). Ancient Assyrian rafts, supported by inflated skins, and modern *keleks* on the Tigris are figured on pp. 124 and 125 of the translation of *Ezekiel* in the Polychrome Bible.

<sup>2</sup>Cheyne remarks in his *Encyclopædia Biblica* (col. 2574, below) that the sea seemed more alive near Joppa than elsewhere, and the living power in certain waters was frequently held to be derived from serpents or dragons. In Babylonian mythology the dragon *Tiāmat* is the personification of the primeval ocean. The ocean was imagined as a broad circular stream encircling the disk of the earth; see my paper *The Rivers of Paradise* in the *Journal of the American Oriental Society*, Vol. XVI., p. ciii, and my remarks on the Babylonian map of the world in the translation of *Ezekiel* (in the Polychrome Bible) p. 100, l. 35.

Perseus and Andromeda reappears in the legend of the patron saint of England, St. George<sup>1</sup> and the Dragon in connection with the city of Beyrout in northern Syria. The Bay of Beyrout is known as St. George Bay, and the belief in a huge sea-monster is still rife there. The Chaplain to the Church of Scotland at Beyrout, Geo. M. Mackie, states<sup>2</sup> that when a few years ago a Belgian steamer reaching Beyrout at midnight blew her siren whistles to inform the agents of her arrival, the unprecedented shriek, which startled the whole town out of sleep, was supposed to be the howling of the marine monster, and next day the chief topic of conversations in the bazaars was the visit of the *beast of the sea* during the previous night.

Josephus<sup>3</sup> and Pliny<sup>4</sup> state that the holes where the staples of Andromeda's chains had been driven into the rock were shown at Joppa, and Pliny relates that the bones of the sea-monster to which Andromeda is said to have been exposed were brought from Joppa to Rome and exhibited with a number of other curiosities under the edileship of Marcus Scaurus (58 B. C.). This skeleton was 40 feet long; the ribs were larger than those of the Indian elephant, and the spinal column was about 1½ feet thick.<sup>5</sup> This is preceded by the statement that a sea-monster is said to have been cast ashore, near Cadiz in Southern Spain, which measured 16 cubits between the ends of the flukes and had 120 teeth from 6 to 9 in. long.<sup>6</sup> Sixteen Roman cubits would be about 23 feet,

<sup>1</sup> St. George is said to have been a tribune (of Cappadocian extraction) in the Roman army at the time of the Diocletian persecution of the Christians, who, about 303 A. D. was put to death in Nicomedia.

<sup>2</sup> See Hastings' Dictionary of the Bible, Vol. II, p. 755<sup>a</sup>; n. †.

<sup>3</sup> Bell. Jud. III., 9, 3: ἐνθα τῶν Ἀνδρομέδας δεσμῶν ἐτι δεικνύμενοι τύποι πιστοῦνται τὴν ἀρχαιότητα τοῦ μύθου. Cf. Strabo, § 759: ἐνταῦθα δὲ μυθεύουσι τινες τὴν Ἀνδρομέδαν ἐκτεθῆναι τῷ κήτει.

<sup>4</sup> Nat. Hist., v, 69: *Iope Phoenicum, antiquior terrarum inundatione, ut ferunt, insidet collem præjacente saxo in quo vinculorum Andromedæ vestigia ostendunt; colitur illic fabulosa Ceto.* Cf. Ovid, *Metamorph.* iv, 670.

<sup>5</sup> Plin. Nat. Hist., IX., 11: *Beluæ cui dicebatur exposita fuisse Andromeda ossa Romæ apportata ex oppido Judææ Iope ostendit inter reliqua miracula in ædilitate sua M. Scaurus, longitudine pedum XL, altitudine costarum Indicos elephantos excedente, spinæ crassitudine sesquipedali.*

<sup>6</sup> Turranius prodidit expulsam beluam in Gaditano litore cujus inter duas pennas ultimæ caudæ cubita sedecim fuissent, dentes ejusdem CXX, maximi dodrantium mensura, minimi semipedum.

and the flukes of a giant sperm-whale may be 23 feet between their extremities, although 12 to 15 feet is a more frequent measurement. The teeth of a sperm-whale are, as a rule, 5 or 6 inches long, not 6-9 inches, and the number 120 appears to be due to a misunderstanding: the original report may have been that this marine monster had 60 teeth on both sides of the lower jaw, which may have been misinterpreted to mean: sixty teeth on each side of the lower jaw. As a rule, a sperm-whale has from 20 to 25 teeth on each side of the lower jaw, according to the age of the animal. Pliny says of the *physeter*, i. e., the *sperm-whale*: it is the largest animal in the Gallic ocean, i. e., the Bay of Biscay. It raises itself like an enormous pillar, towering above the sails of the vessels<sup>1</sup> and spouting a flood of water.<sup>2</sup> Cachalots often raise their enormous square head above the water, and the head of a giant sperm-whale may be more than 30 feet long.

There is no reason for doubting the statement that there were some chains fastened to one of the rocks near the entrance to the port of Joppa; nor is there any reason for discrediting the report that the skeleton of a sea-monster was brought from Joppa to Rome in 58 B. C. A large sperm-whale may have been drifted ashore at Joppa, and the skeleton may have been left there for a long time until it was finally carried to Rome at the time of Cicero. The legend of the maiden exposed to the sea-monster and rescued by a gallant hero is a subsequent embellishment of popular fancy,<sup>3</sup> suggested by the presence of the huge skeleton on the beach, and the author of the Sadducean apologue known as the Book of Jonah

<sup>1</sup> The masts of ancient vessels were not very high. A terra-cotta model of a Phœnician ship is figured in the translation of *Ezekiel* (in the Polychrome Bible) p. 149.

<sup>2</sup> Plin. *Nat. Hist.* IX., 8: *Maximum animal . . . in Gallico oceano physeter ingentis columnæ modo se attollens altiorque navium velis diluviem quandam eructans.*

<sup>3</sup> Cf. the legend of King Bodo and Brunhildis in connection with the granite cliff, known as *Rossmannshöhe*, in the Hartz mountains, and the legend of the *pillar of salt* in the story of Lot (Gen. xix, 26; Luke xvii, 32). See the picture of the pillar of salt at Usdum facing p. 308 of Lynch's *Narrative of the U. S. Expedition to the River Jordan and the Dead Sea* (Philadelphia, 1850).

introduced the sea-monster (or giant-sperm-whale) of Joppa in order to transport the disobedient prophet as speedily as possible from Joppa, the sea-port of Jerusalem, to Alexandretta, the terminus of the shortest route from the Mediterranean to Nineveh.

The grotesque idea that the prophet composed an elaborate poem in the belly of the whale must not be credited to the author of the story. Even Luther said, Jonah hardly felt so well as to sing so fine a song.<sup>2</sup> This psalm is a later insertion, just as the Song of Hannah (in the Books of Samuel)<sup>3</sup> and Moses's Song of Triumph (in the Book of Exodus).<sup>4</sup> The editor who inserted the psalm in the Book of Jonah misunderstood the metaphorical expressions *sea*, *ocean*, *surge*, and *billows*, which are used in Hebrew for *distress*, *disaster*,<sup>5</sup> and which refer here especially to the Syrian persecution at the time of Antiochus Epiphanes (about 168 B. C.).<sup>6</sup> This Maccabean poem, which has no connection whatever with the legend of Jonah, may be translated<sup>7</sup> as follows:<sup>8</sup>

A i 2	When in distress I called, JHVH responded; From depths of Sheol I cried; My voice was heard.
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That is, whenever Israel was in distress, JHVH heard their prayers,

<sup>1</sup> The theory that the *great fish* which swallowed Jonah was a *cachalot* was advanced by Quandt, *Jonas der Sohn Amithai* (Berlin, 1866) cited (but rejected) by Paul Kleinert in J. P. Lange's *Bibelwerk*, part XIX. (Bielefeld, 1868) p. 28, below.

<sup>2</sup> *Sowohl ist ihm nicht gewesen, dass er hätte mögen solch ein feines Liedlein singen.*

<sup>3</sup> See my paper *The Prototype of the Magnificat* in the *Journal of the German Oriental Society*, Vol. LVIII (Leipzig, 1904) p. 617.

<sup>4</sup> See my paper in the *American Journal of Semitic Languages*, Vol. XX., p. 154.

<sup>5</sup> Shakespeare says: *deep-drenched in a sea of care and what a tide of woes Comes rushing on this woeful land at once!*

<sup>6</sup> See n. 23 to my translation of the Book of Nahum in Vol. XXVI. of the *Journal of Biblical Literature* (p. 17).

<sup>7</sup> Lines and words omitted in the present translation represent subsequent additions; see my restoration of the original text in the *American Journal of Semitic Languages*, Vol. XXIII., p. 256.

<sup>8</sup> The rhythm of my translation has been much improved in a number of passages by the kind assistance of the distinguished coeditor of the Polychrome Bible, Horace Howard Furness.

even when Israel seemed to be annihilated for ever at the time of Nebuchadnezzar.

ii 3                   Thou plungedst me into the sea,  
                           The ocean engulfs me;  
                           Thine every surge and billow  
                           Over me they pass.

This refers to the Syrian persecution at the time of Antiochus Epiphanes.

B iii 4                I thought, lo! I am banished  
                           From thy presence for ay;  
                           How again shall I see  
                           Thy Holy Temple!

It seemed as though the religion of the Jews was to be exterminated for ever; even the Temple on Mount Zion was in the hands of the heathen for three years, until it was reconsecrated by Judas Macabæus in Dec. 165.<sup>1</sup>

iv 6                   To the depths of the sea, I descended,  
                           To perdition<sup>2</sup> for ay;  
                           Tangle enveloped my head,  
                           Sheol's<sup>3</sup> bolts barred me.

Israel was almost submerged and drowned; Hellenic culture threatened to engulf and bury Judaism for ever.

C v 7                   When in me my soul fainted,  
                           I thought on JHVH;  
                           To Thee my prayer arose,  
                           To Thy Holy Temple.

When Judaism was *in extremis*, the Maccabees began their holy war, and their faith was gloriously rewarded by JHVH.

vi 8                   Who worships false follies,<sup>4</sup>  
                           Forsakes his boon;<sup>5</sup>  
       9                   But I with songs of praise  
                           Sacrifice to Thee.

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<sup>1</sup> See my explanation of Ps. xxiii in the *American Journal of Semitic Languages*, Vol. XXI., p. 152.

<sup>2</sup> Lit. *to the earth*, i. e., the *netherworld*, Hades.

<sup>3</sup> Lit. *her* bolts, referring to the netherworld.

<sup>4</sup> That is, the Greek gods.

<sup>5</sup> God's love and grace.